

IT Help-Desk Ticketing System

Project Goal:

To simulate a real workplace IT support environment using:

- **Hesk** ticketing system
- A small LAN
- Real hardware
- Proper ticket documentation

Equipment Used:

- Laptop (IT Support/ Admin)
- Desktop computer (End User)
- D-Link switch
- Ethernet cables

Network Setup:



IP Addressing Plan

Device	Department	Workgroup	IP Address
Laptop1	Management	MGMT	192.168.1.10
Desktop1	Operations	OPS	192.168.1.12

Subnet Mask: 255.255.255.0 or /24

Network Topology:

Laptop1 → D-Link Switch

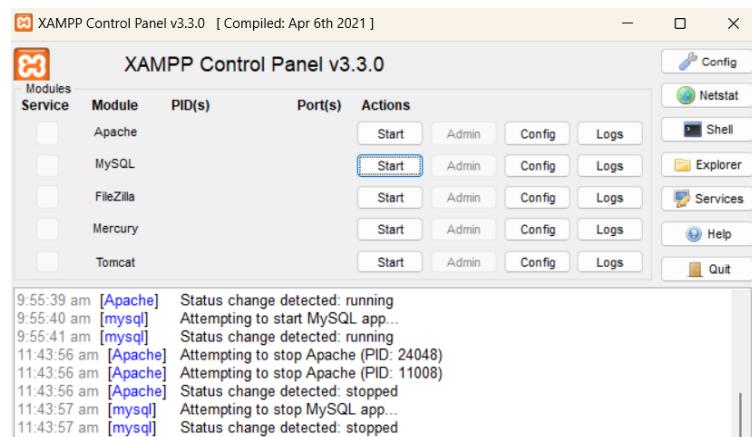
Desktop1 → D-Link Switch

Phase 1: Install Hesk (Helpdesk server)

HESK was installed on a local server using Apache. The system was configured to allow users to submit tickets and administrators to manage, respond to, and close tickets.

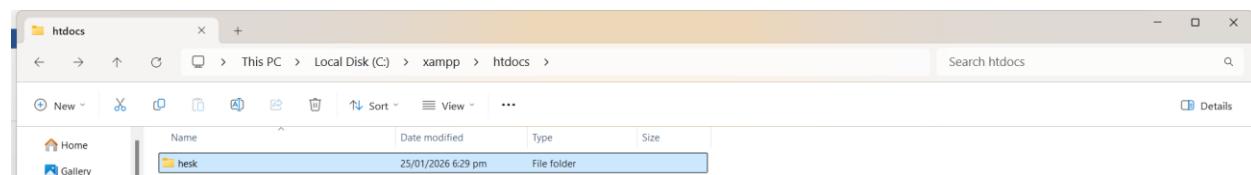
1. Download and Install XAMPP on Laptop1

- Apache
- MySQL
- PHP



2. Download and Install Hesk on Laptop1

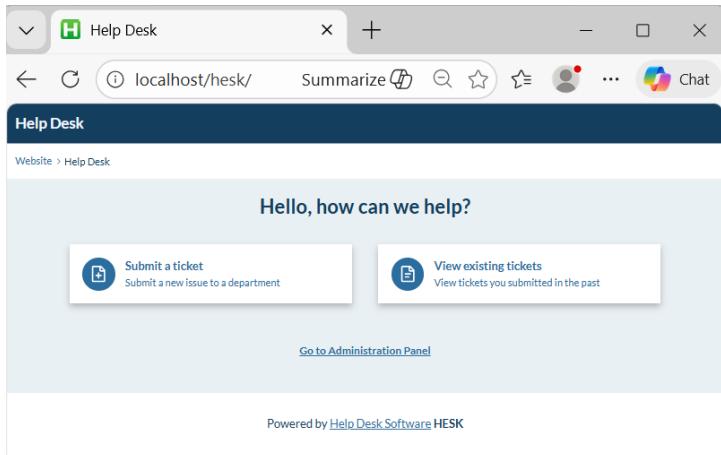
Place Hesk folder in: C:\xampp\htdocs\hesk



Access via browser: <http://localhost/hesk>

Note:

- Remember to create a database using XAMPP
- Remember to start Apache (web server) and MySQL (Database server)



3. Create Admin & Technician Accounts

A screenshot of the 'Help Desk' administration panel. The title bar says 'Help Desk'. The address bar shows 'localhost/hesk/admin/m...'. The main content area has a dark header 'Help Desk'. Below it is a table titled 'Team' with a 'New Team Member' button. The table columns are: NAME, EMAIL, USERNAME, ROLE, RATING, AUTO-ASSIGN, MFA, and actions. Two users are listed: 'Neo (Level 1 Support Technician)' and 'George (IT Support Lead)'. The footer says 'Powered by Help Desk Software HESK'.

Admin: IT Support Lead

Technician: Level 1 Support

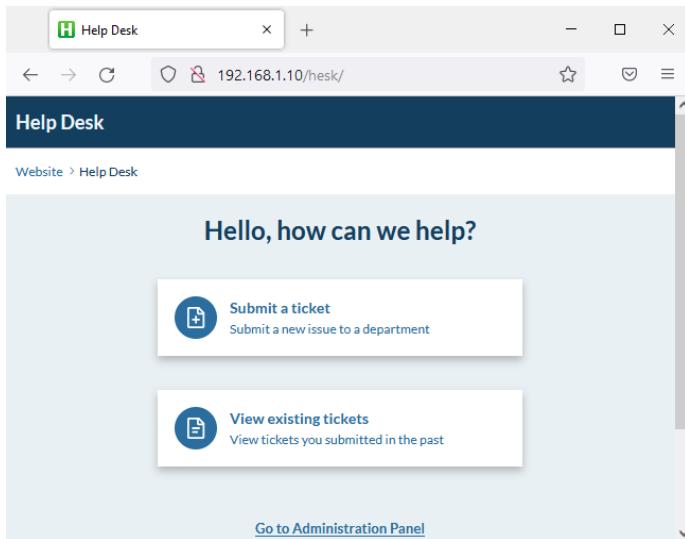
This Laptop1 acts as the IT helpdesk server.

Phase 2: Simulate End User (Desktop1)

A desktop computer was used to act as an end user. Realistic IT problems were reported through the HESK user interface to simulate how employees submit support requests in a workplace.

The desktop computer is the user.

From the desktop browser: <http://192.168.1.10/hesk>

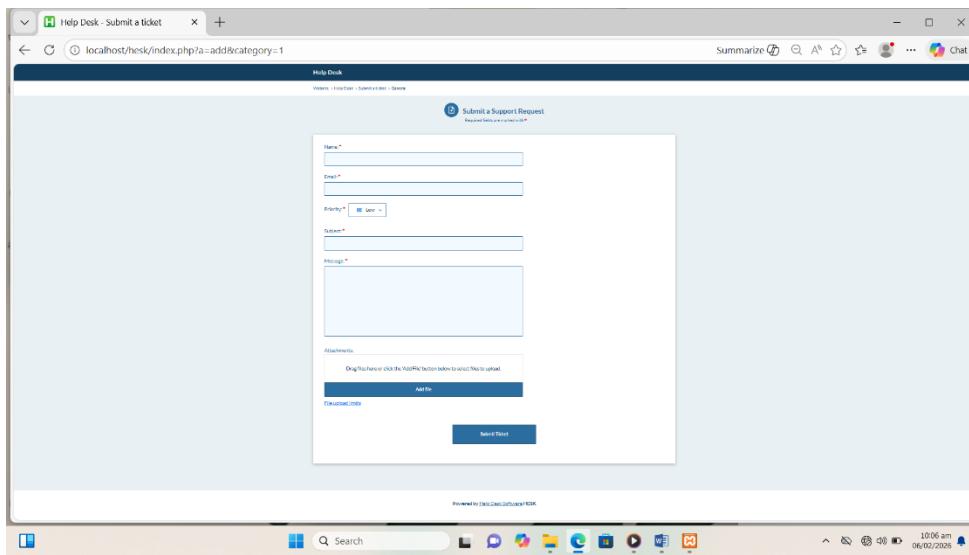


Desktop submits tickets like a real employee.

Phase 3: Practice Ticket Scenarios (Realistic)

Hardware, software, and network issues were intentionally created and submitted as tickets. Each ticket followed a standard format including priority, subject, and detailed problem description.

Generating a ticket on Desktop as a user



Help Desk - Submit a ticket

192.168.1.10/hesk/index.php?a=add&category=3

Submit a Support Request

Required fields are marked with *

Name: *	desktopuser
Email: *	desktopuser@gmail.com
Priority: *	<input type="button" value="Low"/>
Subject: *	Mouse not working
Message: *	The mouse cursor does not move when I try to use the mouse.

Generated tickets list on Laptop1 logged-in as an admin:

Help Desk

localhost/hesk/admin/admin_main.php

Tickets

Open tickets 9 | Assigned to me 4 | Collaborator 0 | Assigned to others 5 | Unassigned 0 | Bookmarks 0 | Due soon 0 | Overdue 0

Create New Ticket | George (IT Support) | Auto reload page

Number of tickets: 9 | Number of pages: 1

With selected: Set priority to: Low | Execute
Assign selected to: Click to Select | Assign

TRACKING ID	UPDATED	CUSTOMER	SUBJECT	STATUS	LAST REPLY	PRIORITY
7HV-YBE-BUSU	17:33	desktopuser	R Helpdesk website not opening	New	desktopuser	High
4B5-TSE-HDZY	17:43	desktopuser	R No Network connection	New	desktopuser	High
7ME-S1R-7WB3	17:46	desktopuser	R Cannot access help-desk system	New	desktopuser	High
J77-G7R-JY65	16:59	desktopuser	R Monitor shows "No Signal"	New	desktopuser	Medium
D41-S76-E5LX	17:20	desktopuser	R Monitor not powering on	New	desktopuser	Medium
D82-9JY-5SDT	17:23	desktopuser	R Visual Studio Code missing	New	desktopuser	Medium
EVG-WP1-RXK12	17:50	desktopuser	R Cannot access shared Music folder	New	desktopuser	Medium
UJO-33X-WST7A	17:11	desktopuser	R Mouse not working	New	desktopuser	Low
WEZ-FAR-AWVU	17:39	desktopuser	R Unable to make attachments	New	desktopuser	Low

Tagged Ticket
Assigned to me
Assigned to other staff

7:52 pm 06/02/2026

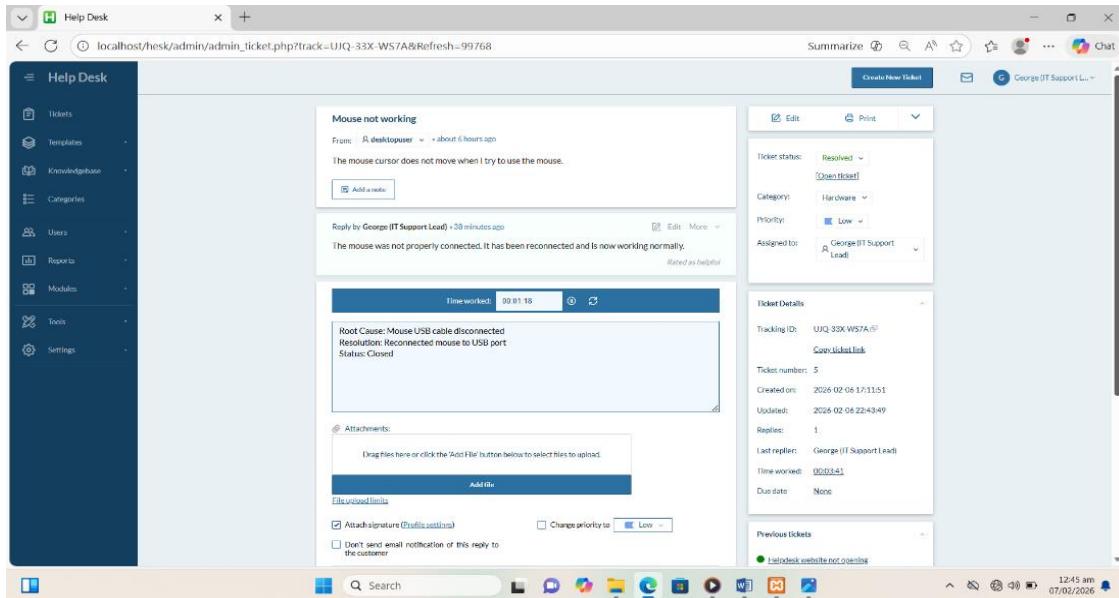
Examples of Ticket Resolved (Helpdesk website not opening and Mouse not working):

This screenshot shows a ticket resolution for a 'Helpdesk website not opening' issue. The ticket was created by 'desktopuser' and resolved by 'Neo (Level 1 Support Technician)'. The status is now 'Resolved'. The ticket details include tracking ID 7HVYOF-6U5U, created on 2026-02-06 17:33:40, updated on 2026-02-06 18:17:32, and three replies. The ticket is categorized as 'Software' with a priority of 'High'.

This screenshot shows a ticket resolution for a 'Mouse not working' issue. The ticket was created by 'desktopuser' and resolved by 'George (IT Support Lead)'. The status is now 'Resolved'. The ticket details include tracking ID UJQ-33X-WS7A, created on 2026-02-06 17:11:51, updated on 2026-02-06 22:07:00, and one reply. The ticket is categorized as 'Hardware' with a priority of 'Low'.

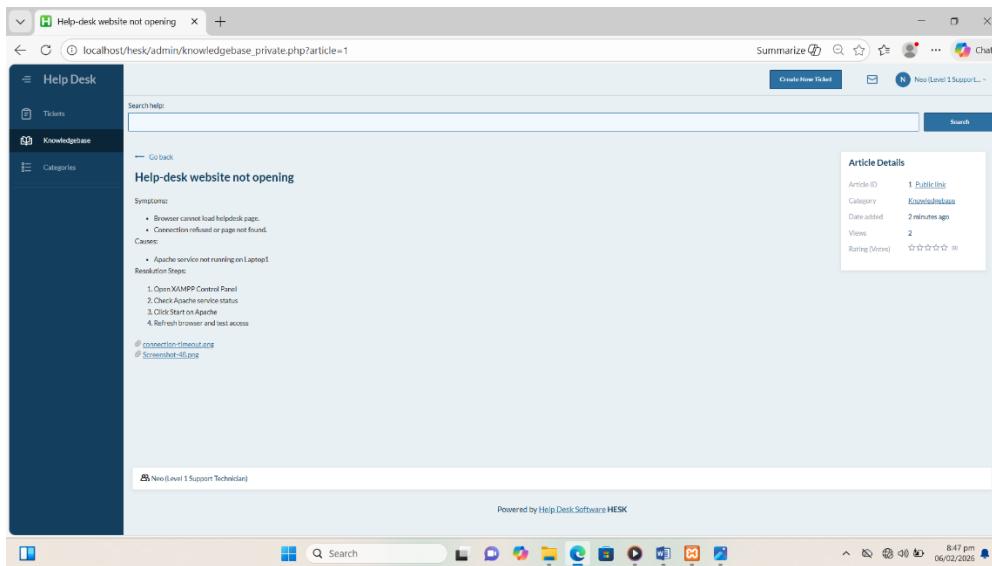
Phase 4: Document Each Fix

Each ticket was troubleshooted and resolved by the technician. Root cause, resolution steps, and confirmation of successful fix were documented inside the ticket before closure.



Phase 5: Knowledgebase Creation

Common and repeat issues were converted into knowledgebase articles. Each article included symptoms, cause, and step-by-step resolution for future reference.



The screenshot shows a web browser window for a Help Desk system. The URL is localhost/hesk/admin/knowledgebase_private.php?article=2. The page displays a knowledgebase article titled "Mouse Not Working on Desktop". The article details symptoms (mouse cursor not moving, mouse light off), causes (Mouse USB cable disconnected from the computer), and resolution steps (Check mouse USB connection, Plug the mouse into a different USB port, Wait for Windows to detect the device). On the right, there is an "Article Details" sidebar showing Article ID 2, Category Knowledgebase, Date added about a minute ago, Views 1, and a rating of 5 stars. The bottom of the screen shows a Windows taskbar with various icons and the date/time 07/02/2026 12:18 am.

Phase 6: Reports

This section is used to track ticket activity, response times, technician performance, and common problem areas. It helps management monitor helpdesk efficiency and improve IT service delivery.

The screenshot shows a web browser window for a Help Desk system. The URL is <localhost/hesk/admin/reports.php>. The page displays a "Run Reports" form with a date range set to "This month (February)" and a report type set to "Tickets per day". Below the form is a table showing ticket activity for each day from February 1 to February 6, 2026. The table includes columns for DATE, NEW TICKETS, OPEN, RESOLVED, and TIME WORKED. The data shows 9 new tickets on Friday, February 6, 2026, with 7 resolved and a total time worked of 00:10:12. The bottom of the screen shows a Windows taskbar with various icons and the date/time 07/02/2026 12:25 am.

DATE	NEW TICKETS	OPEN	RESOLVED	TIME WORKED
Sunday, February 1, 2026	0	0	0	
Monday, February 2, 2026	0	0	0	
Tuesday, February 3, 2026	0	0	0	
Wednesday, February 4, 2026	0	0	0	
Thursday, February 5, 2026	0	0	0	
Friday, February 6, 2026	9	7	2	00:10:12
Totals	9	7	2	00:10:12